

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL062918\
 Data File : VL032165.D
 Acq On : 30 Jun 2018 11:13
 Operator : SY/AP
 Sample : J3601-05
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 RESIDENT-B-INDOOR

Manual Integrations
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 7/2/2018 4:26:49 PM

Quant Time: Jul 02 12:11:06 2018
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL062918AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Jun 29 2018
 QLast Update : Fri Jun 29 22:27:58 2018
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.85	49	1585148	10.00	ppbv	-0.01
33) 1,4-Difluorobenzene	7.38	114	3976042	10.00	ppbv	-0.02
55) Chlorobenzene-d5	12.34	117	3538086	10.00	ppbv	-0.02

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.68	95	2817470	10.42	ppbv	-0.02
Spiked Amount	10.000	Range	65 - 135	Recovery	=	104.20%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.13	85	47958	0.23	ppbv	90
3) Chlorodifluoromethane	3.07	51	54647m	0.28	ppbv	
4) Chloromethane	3.23	50	82501	0.80	ppbv	94
9) Propene	3.11	41	3372887m	37.36	ppbv	
10) Heptane	8.34	43	79521	0.30	ppbv	87
11) Trichlorofluoromethane	4.07	101	115689	0.51	ppbv	99
13) Ethanol	3.74	45	11562923	422.54	ppbv	97
15) Acetone	3.96	43	6834082	36.87	ppbv	97
19) Isopropyl Alcohol	4.13	45	2201834m	14.30	ppbv	
20) Methylene Chloride	4.49	84	78292	1.16	ppbv	95
25) Ethyl Acetate	5.85	43	1201616	3.13	ppbv #	91
27) Carbon Disulfide	4.70	76	25643	0.15	ppbv #	41
29) Chloroform	5.94	83	351113m	1.37	ppbv	
34) 2-Butanone	5.41	43	529848	2.10	ppbv	97
35) Carbon Tetrachloride	7.22	117	23839m	0.09	ppbv	
36) Benzene	7.09	78	121777	0.32	ppbv	99
37) 1,2-Dichloroethane	6.50	62	555629	2.90	ppbv	98
41) Tetrahydrofuran	6.23	42	39580	0.26	ppbv #	70
50) 4-Methyl-2-Pentanone	8.97	43	155647m	0.38	ppbv	
52) Tetrachloroethene	11.48	164	12716m	0.09	ppbv	
53) Toluene	10.04	91	1709698	3.68	ppbv	99
58) Ethyl Benzene	12.96	91	386551	0.68	ppbv	95
59) m/p-Xylene	13.22	91	726885	1.59	ppbv	97
60) o-Xylene	13.95	91	301899	0.66	ppbv	97
61) Styrene	13.78	104	156191	0.42	ppbv	94
69) p-Isopropyltoluene	17.92	119	513621	0.71	ppbv	95
74) 1,2,4-Trimethylbenzene	17.02	105	156365	0.28	ppbv #	73
76) 1,4-Dichlorobenzene	17.41	146	96199	0.30	ppbv	91

(#) = qualifier out of range (m) = manual integration (+) = signals summed

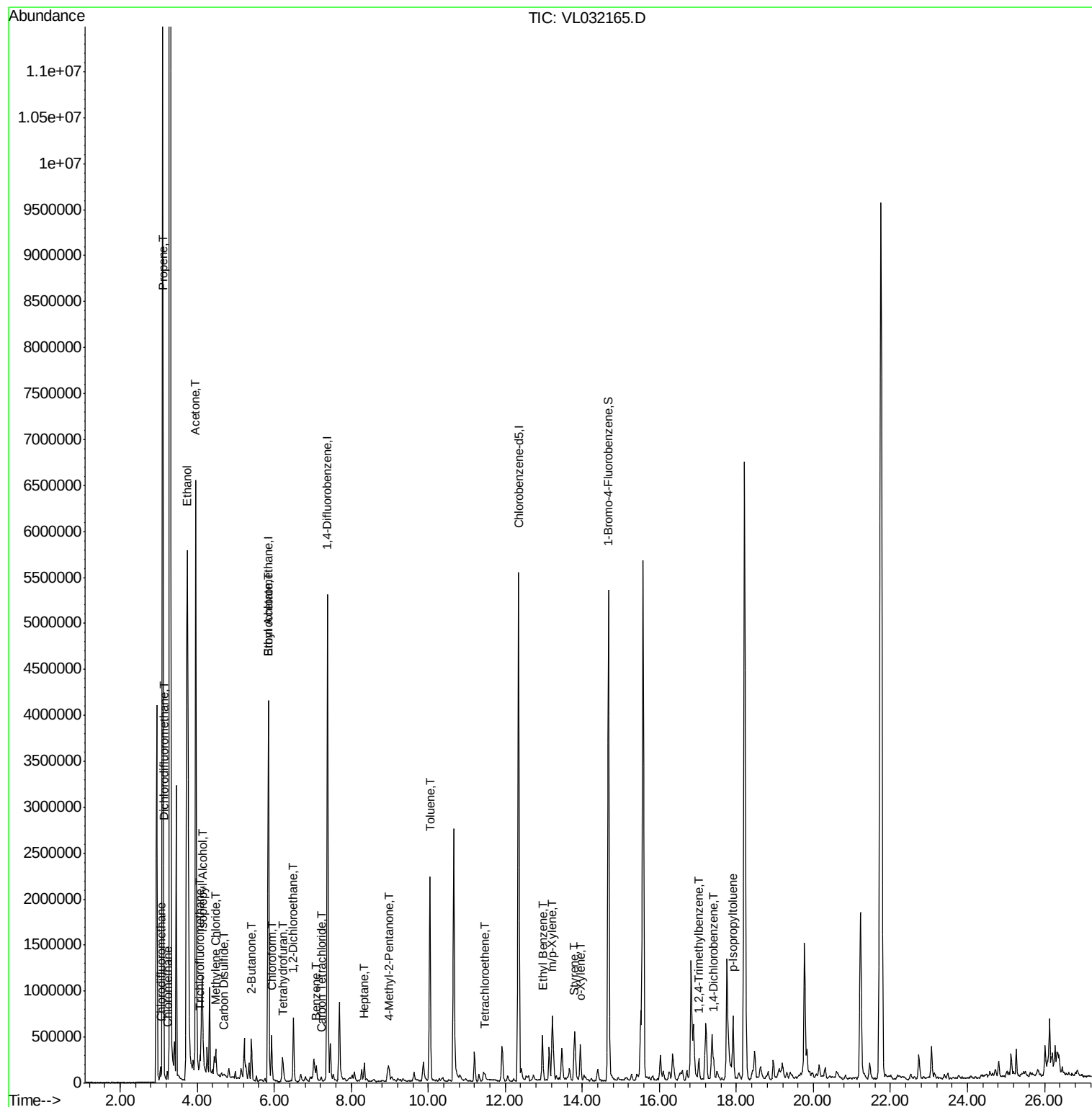
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL062918\
Data File : VL032165.D
Acq On : 30 Jun 2018 11:13
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Misc : 400ml/MSVOA L
ALS Vial : 1 Sample Multiplier: 1

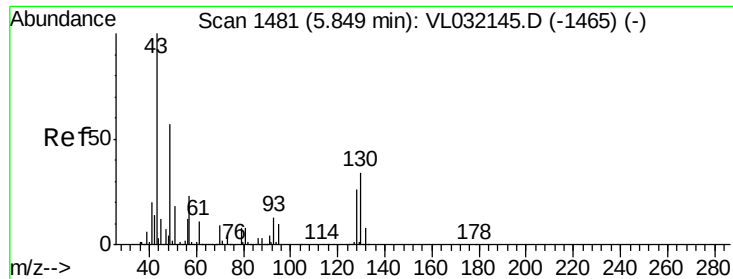
Instrument :
MSVOA_L
ClientSampleId :
RESIDENT-B-INDOOR

Quant Time: Jul 02 12:11:06 2018
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL062918AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Jun
QLast Update : Fri Jun 29 22:27:58 2018
Response via : Initial Calibration

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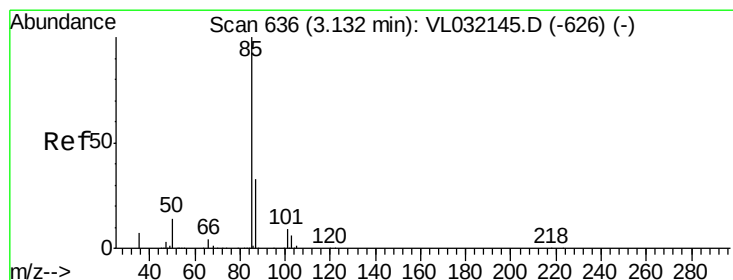
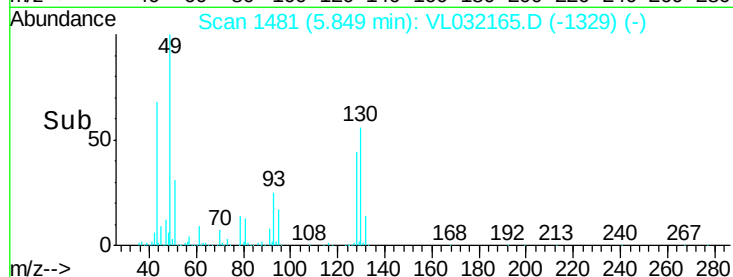
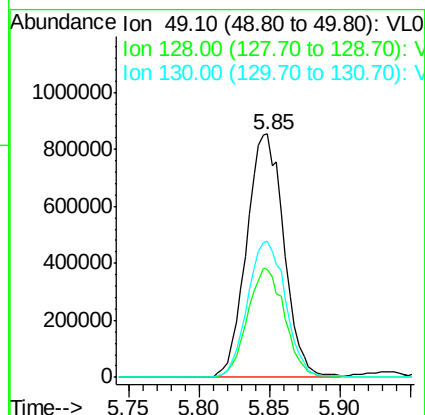
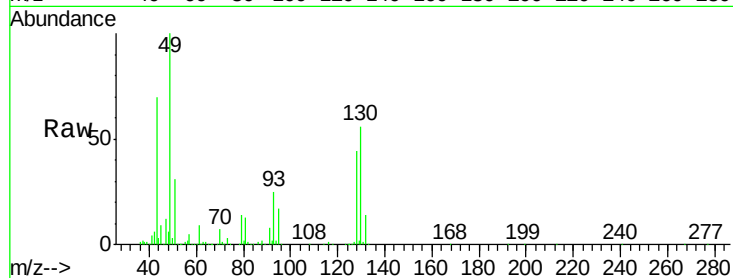
#1
 Bromochloromethane
 Concen: 10.00 ppbv
 RT: 5.85 min Scan# 1481
 Delta R.T. -0.01 min
 Lab File: VL032165.D
 Acq: 30 Jun 2018 11:13

Instrument :
 MSVOA_L
 ClientSampleId :
 RESIDENT-B-INDOOR

Tot Ion: 49 Resp: 1585148
 Ion Ratio Lower Upper
 49 100
 128 45.0 23.4 70.0
 130 57.3 30.3 90.9

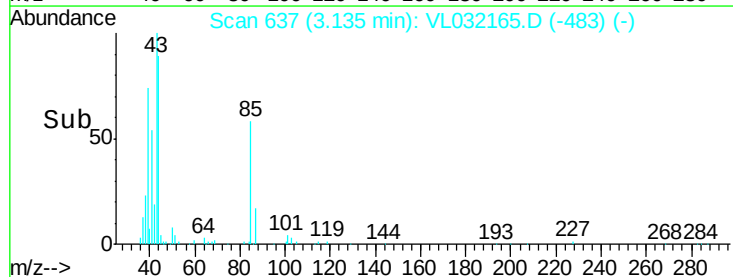
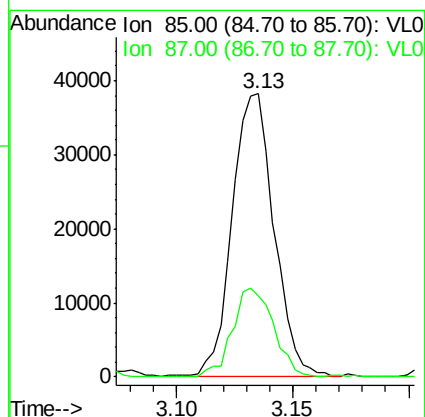
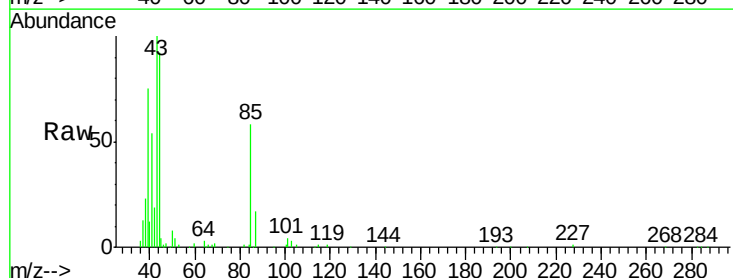
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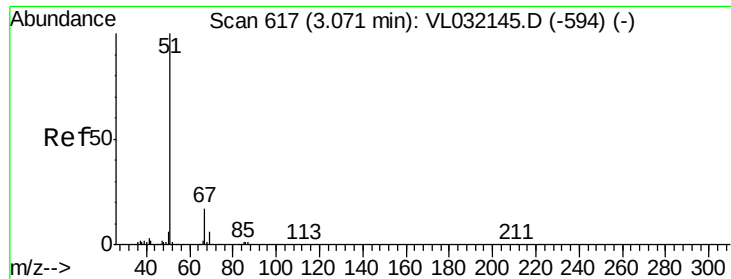
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#2
 Dichlorodifluoromethane
 Concen: 0.23 ppbv
 RT: 3.13 min Scan# 637
 Delta R.T. -0.01 min
 Lab File: VL032165.D
 Acq: 30 Jun 2018 11:13

Tgt Ion: 85 Resp: 47958
 Ion Ratio Lower Upper
 85 100
 87 27.9 26.7 40.1





#3

Chlorodifluoromethane

Concen: 0.28 ppbv m

RT: 3.07 min Scan# 616

Delta R.T. -0.01 min

Lab File: VL032165.D

Acq: 30 Jun 2018 11:13

Instrument :

MSVOA_L

ClientSampleId :

RESIDENT-B-INDOOR

Tot Ion: 51 Resp: 54647

Ion Ratio Lower Upper

51 100

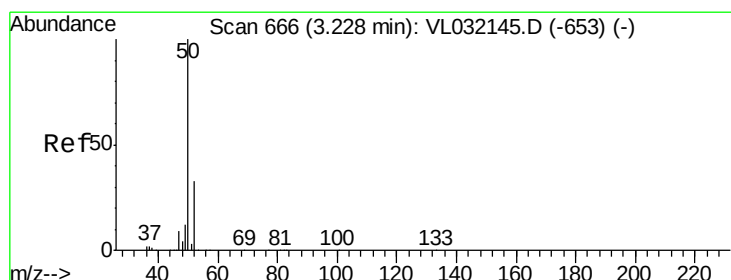
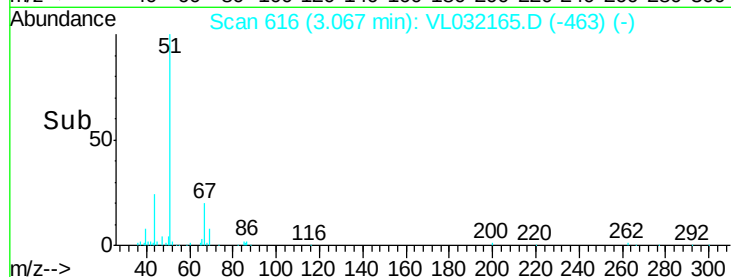
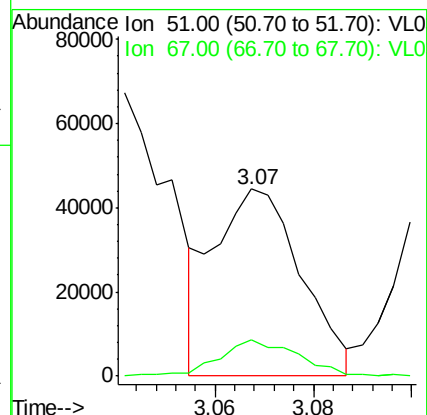
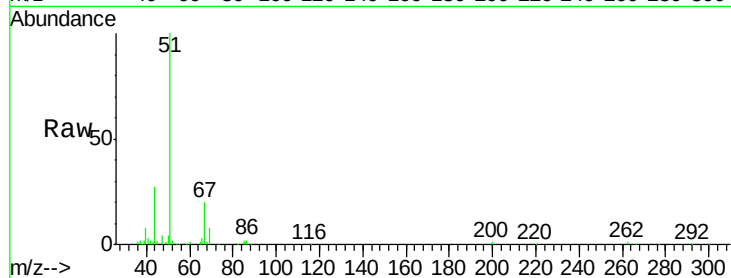
67 18.0 13.2 19.8

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#4

Chloromethane

Concen: 0.80 ppbv

RT: 3.23 min Scan# 666

Delta R.T. -0.01 min

Lab File: VL032165.D

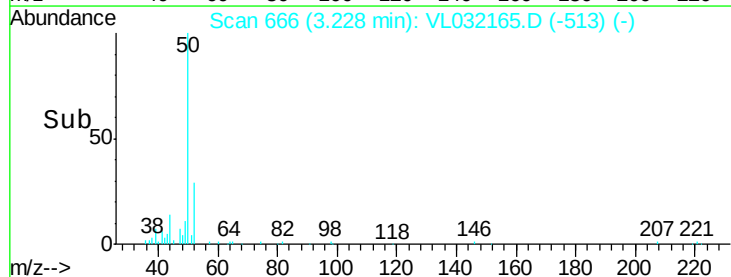
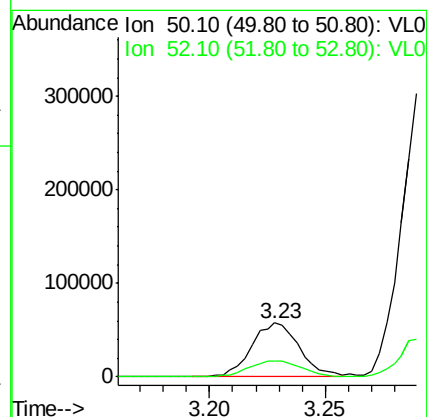
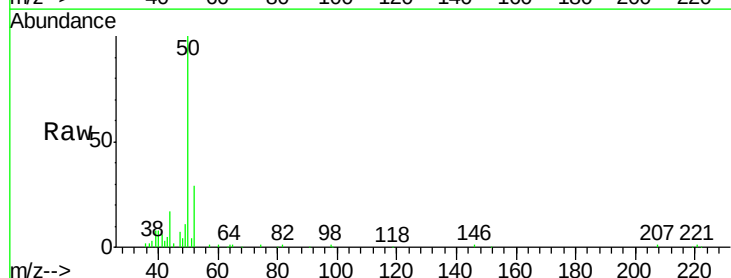
Acq: 30 Jun 2018 11:13

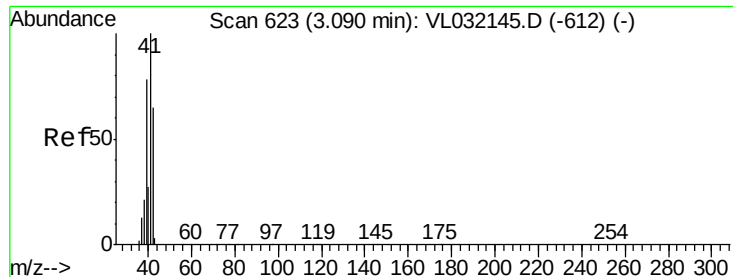
Tgt Ion: 50 Resp: 82501

Ion Ratio Lower Upper

50 100

52 29.4 26.0 39.0





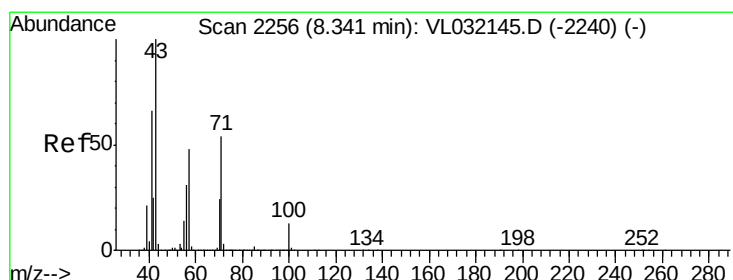
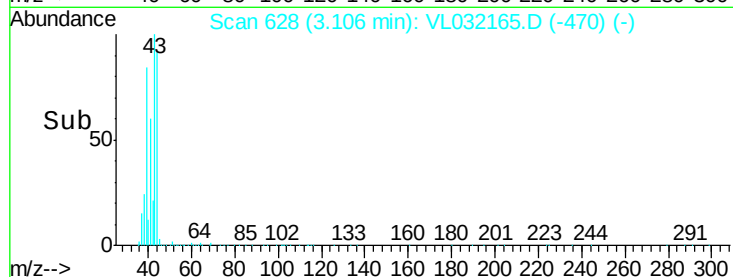
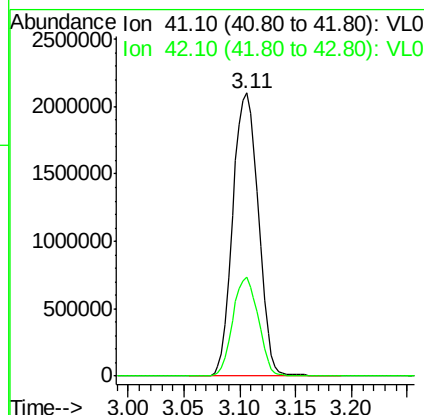
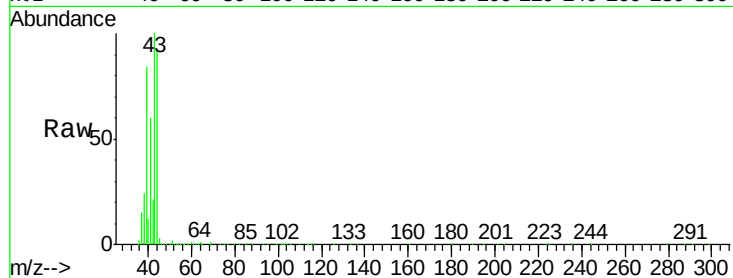
#9
 Propene
 Concen: 37.36 ppbv m
 RT: 3.11 min Scan# 628
 Delta R.T. 0.01 min
 Lab File: VL032165.D
 Acq: 30 Jun 2018 11:13

Instrument :
 MSVOA_L
 ClientSampleId :
 RESIDENT-B-INDOOR

Tot Ion: 41 Resp: 3372887
 Ion Ratio Lower Upper
 41 100
 42 334.9 56.2 84.4#

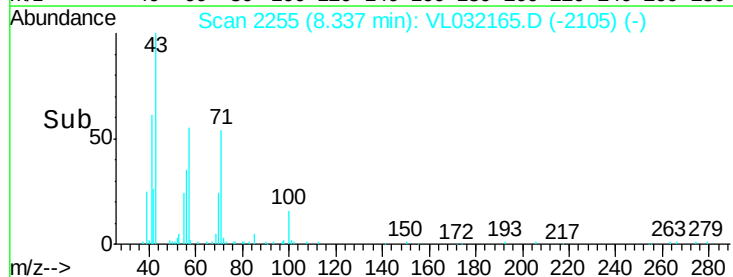
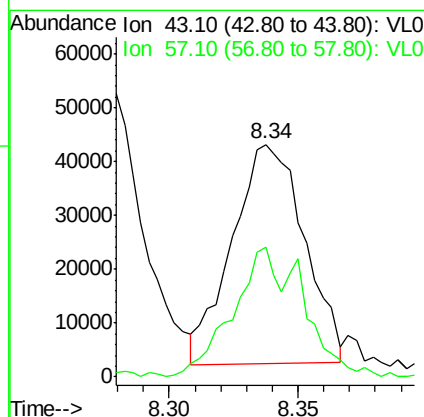
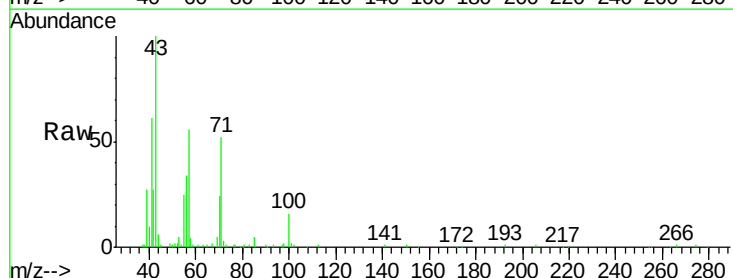
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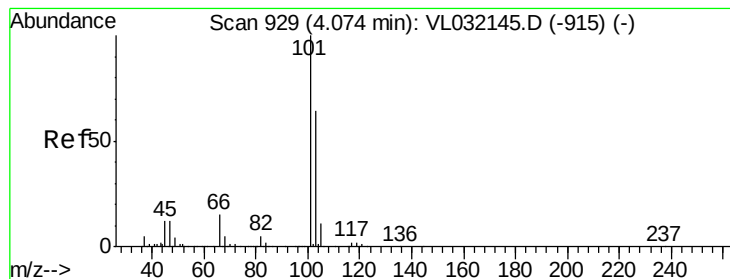
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#10
 Heptane
 Concen: 0.30 ppbv
 RT: 8.34 min Scan# 2255
 Delta R.T. -0.02 min
 Lab File: VL032165.D
 Acq: 30 Jun 2018 11:13

Tgt Ion: 43 Resp: 79521
 Ion Ratio Lower Upper
 43 100
 57 58.5 39.8 59.8





#11

Trichlorofluoromethane

Concen: 0.51 ppbv

RT: 4.07 min Scan# 929

Delta R.T. -0.01 min

Lab File: VL032165.D

Acq: 30 Jun 2018 11:13

Instrument :

MSVOA_L

ClientSampleId :

RESIDENT-B-INDOOR

Tot Ion:101 Resp: 115689

Ion Ratio Lower Upper

101 100

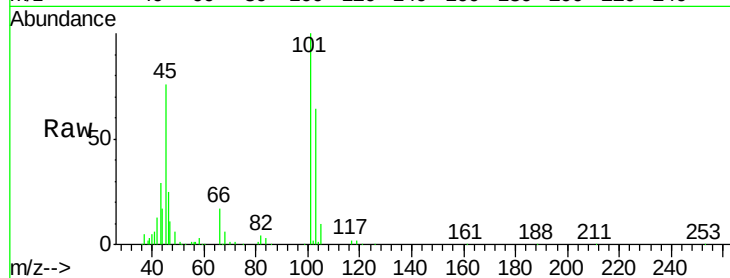
103 63.6 51.4 77.0

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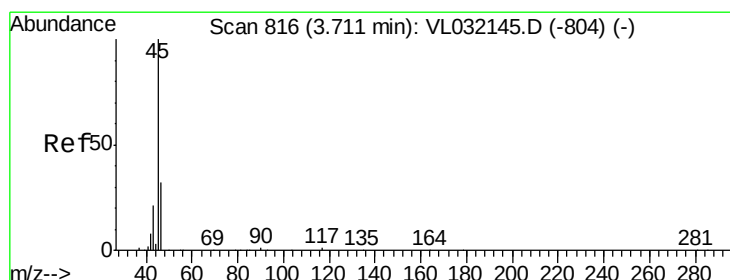
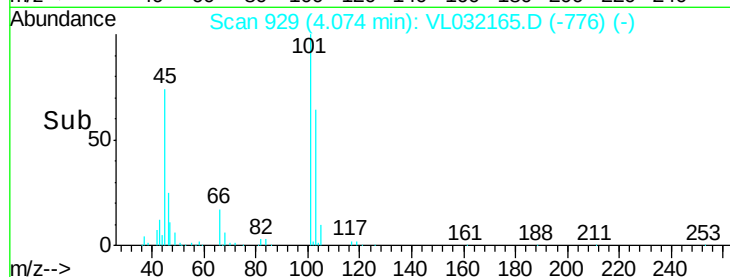
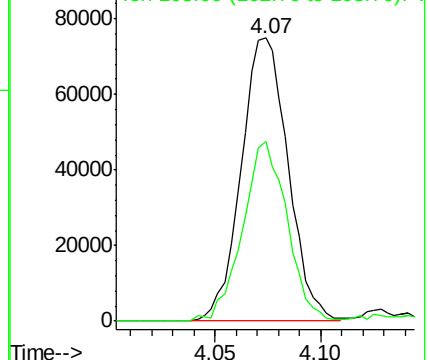
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Abundance Ion 101.00 (100.70 to 101.70): V

Ion 103.00 (102.70 to 103.70): V



#13

Ethanol

Concen: 422.54 ppbv

RT: 3.74 min Scan# 825

Delta R.T. 0.02 min

Lab File: VL032165.D

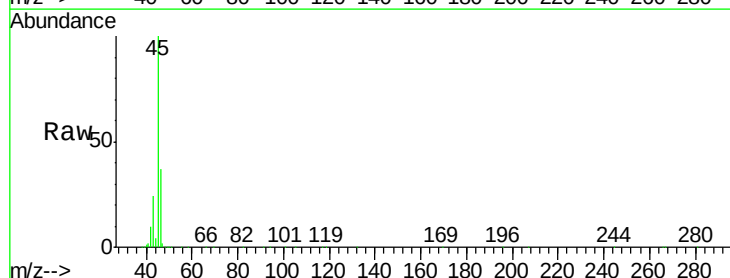
Acq: 30 Jun 2018 11:13

Tgt Ion: 45 Resp:11562923

Ion Ratio Lower Upper

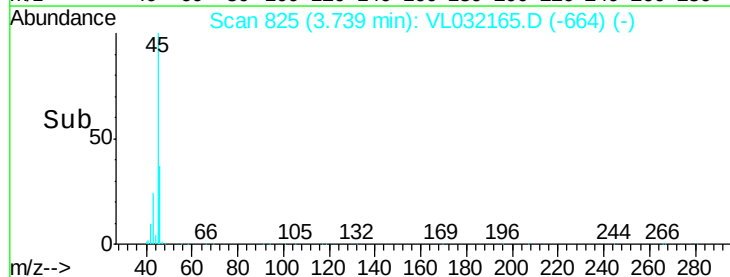
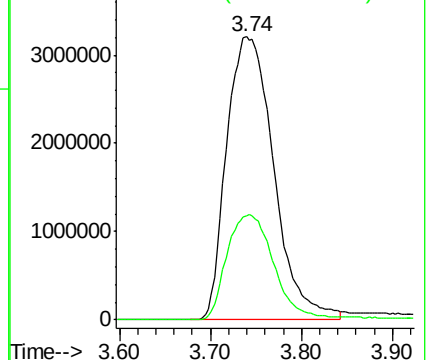
45 100

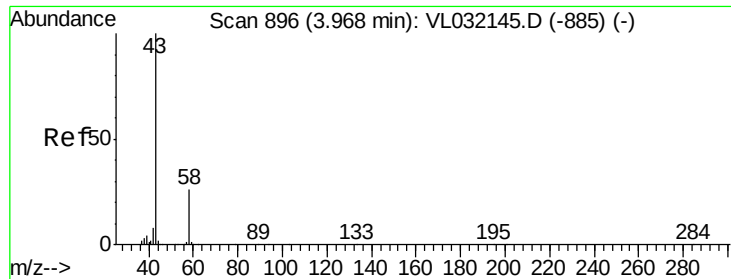
46 38.4 14.6 58.4



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 46.10 (45.80 to 46.80): VL0





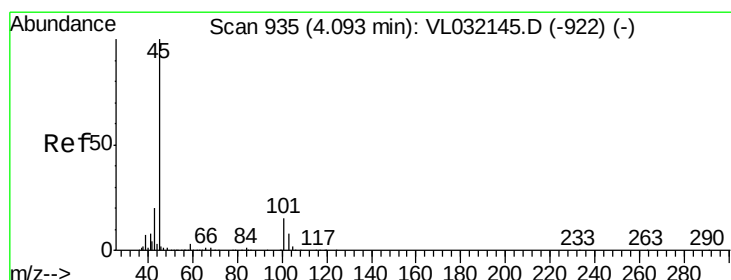
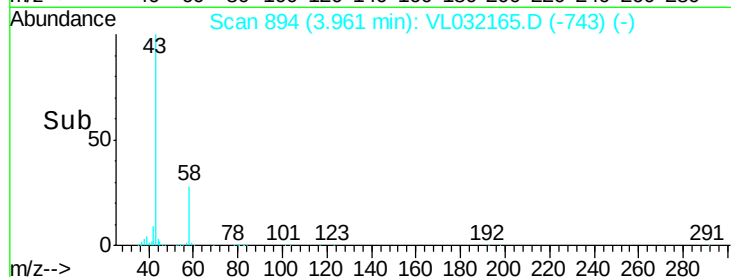
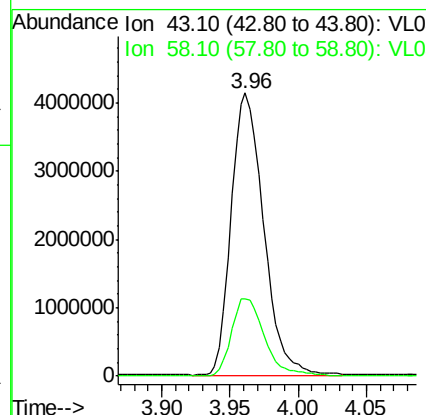
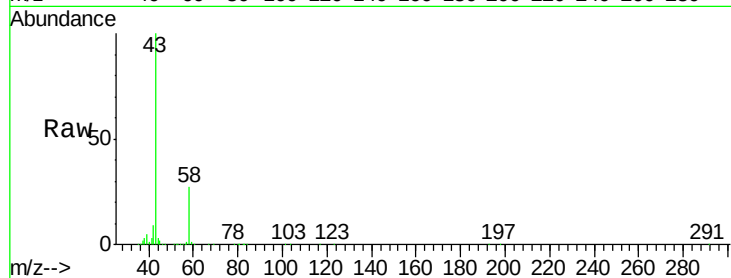
#15
Acetone
Concen: 36.87 ppbv
RT: 3.96 min Scan# 894
Delta R.T. -0.02 min
Lab File: VL032165.D
Acq: 30 Jun 2018 11:13

Instrument :
MSVOA_L
ClientSampleId :
RESIDENT-B-INDOOR

Tot Ion: 43 Resp: 6834082
Ion Ratio Lower Upper
43 100
58 28.4 21.4 32.0

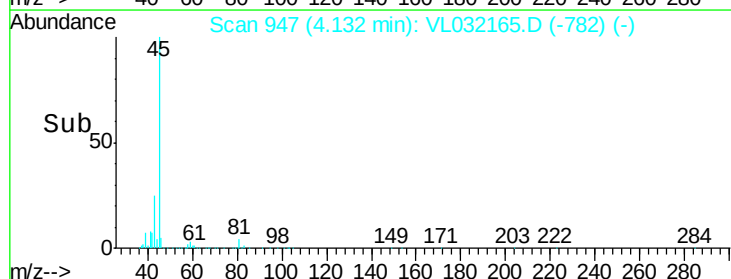
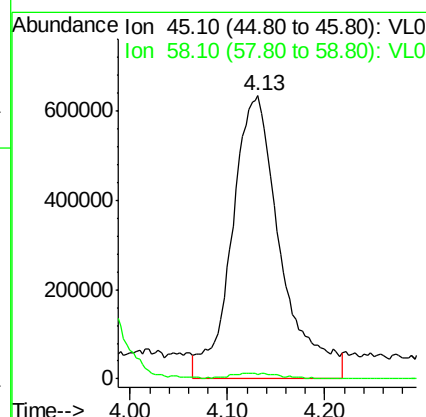
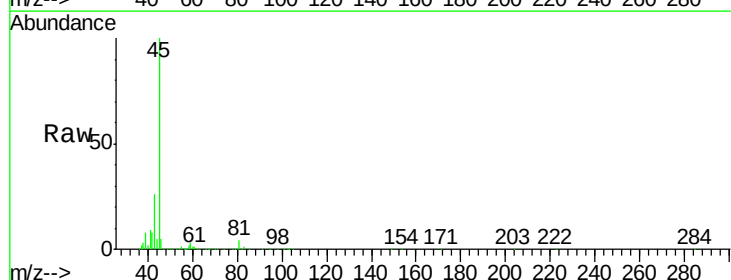
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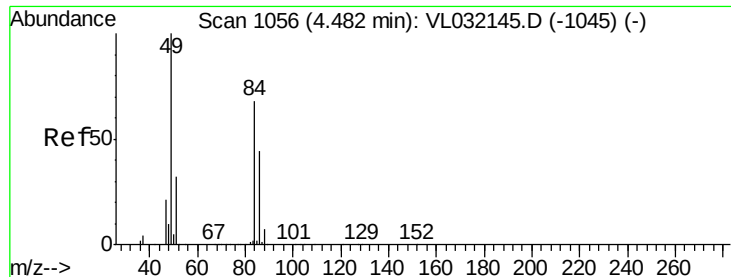
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#19
Isopropyl Alcohol
Concen: 14.30 ppbv m
RT: 4.13 min Scan# 947
Delta R.T. 0.03 min
Lab File: VL032165.D
Acq: 30 Jun 2018 11:13

Tgt Ion: 45 Resp: 2201834
Ion Ratio Lower Upper
45 100
58 0.0 29.4 44.0#





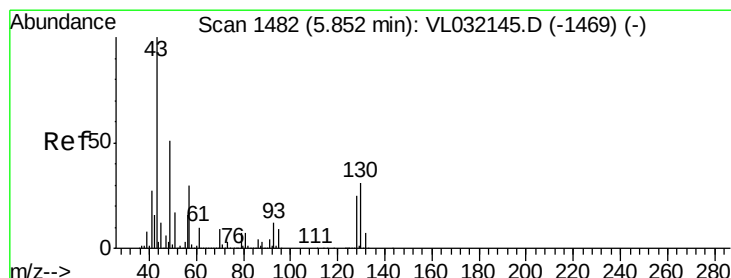
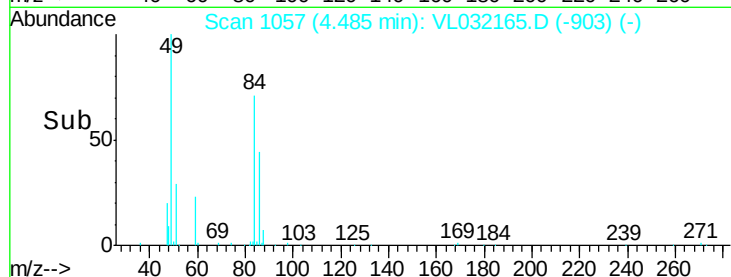
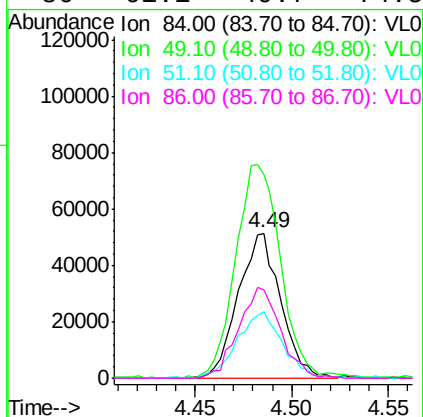
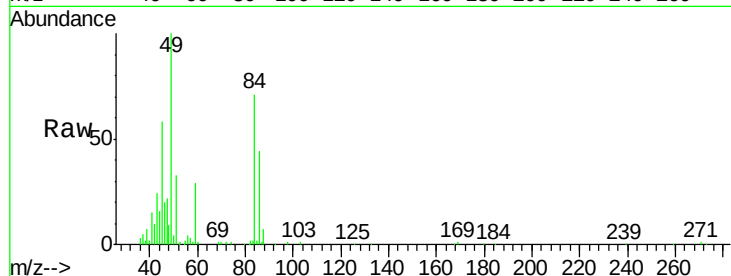
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Methvlene Chloride
Concen: 1.16 ppbv
RT: 4.49 min Scan# 1057
Delta R.T. -0.01 min
Lab File: VL032165.D
Acq: 30 Jun 2018 11:13

Instrument :
MSVOA_L
ClientSampleId :
RESIDENT-B-INDOOR

Tot Ion	Ratio	Lower	Upper
84	100		
49	138.6	119.6	179.4
51	45.5	36.3	54.5
86	61.1	49.7	74.5

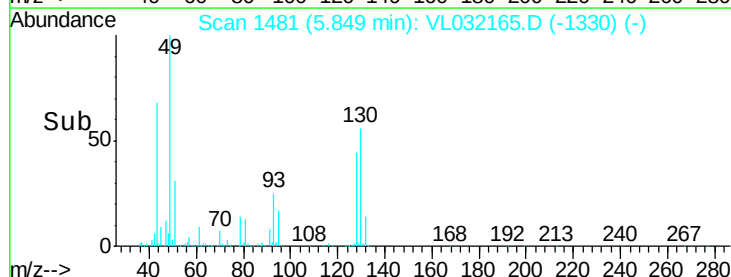
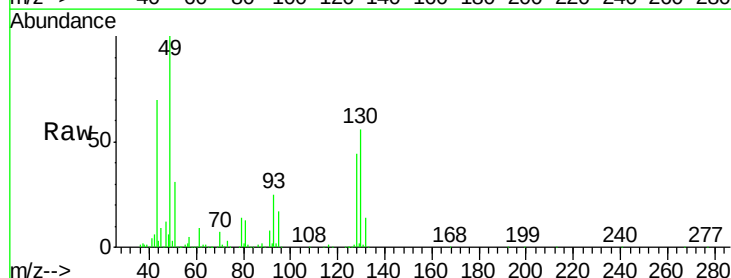
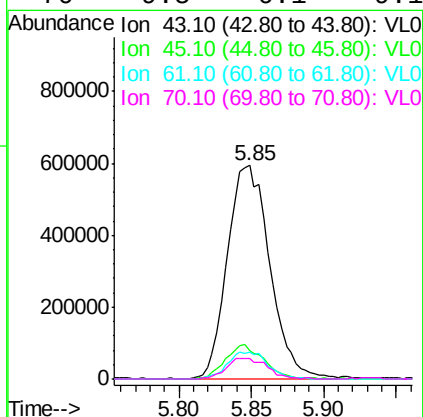
Manual Integrations
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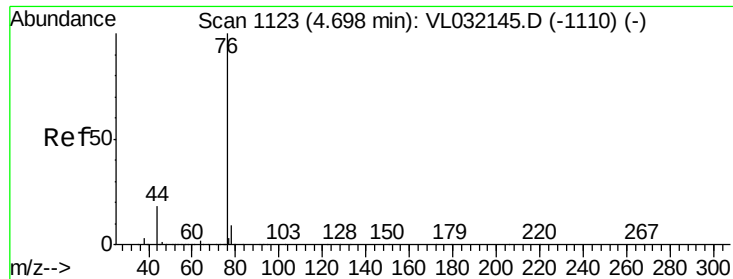
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#25
Ethyl Acetate
Concen: 3.13 ppbv
RT: 5.85 min Scan# 1481
Delta R.T. -0.02 min
Lab File: VL032165.D
Acq: 30 Jun 2018 11:13

Tgt Ion	Ratio	Lower	Upper
43	100		
45	14.7	7.8	11.8#
61	12.3	7.4	11.0#
70	9.5	6.1	9.1#





#27

Carbon Disulfide

Concen: 0.15 ppbv

RT: 4.70 min Scan# 1124

Delta R.T. -0.01 min

Lab File: VL032165.D

Acq: 30 Jun 2018 11:13

Instrument :

MSVOA_L

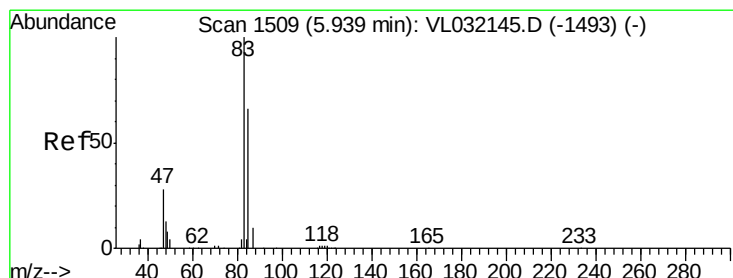
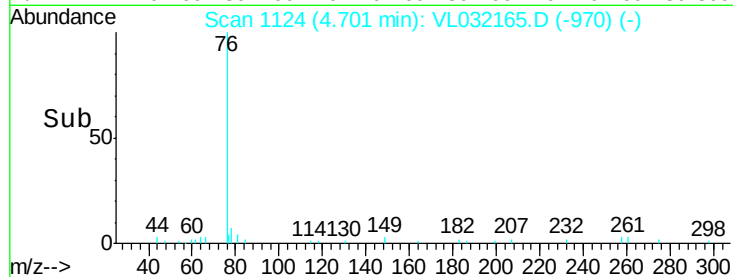
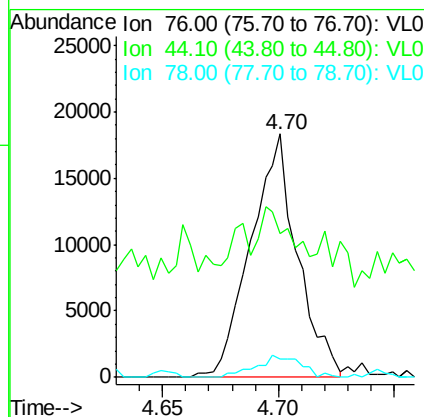
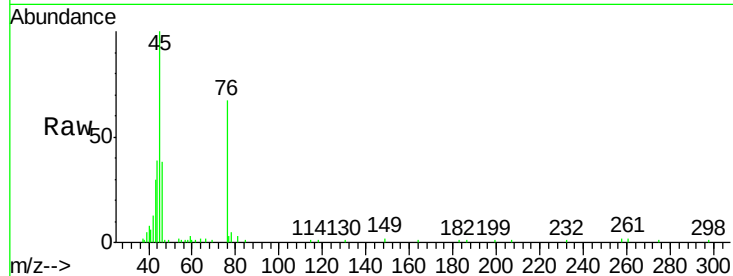
ClientSampleId :

RESIDENT-B-INDOOR

Tot Ion	Ratio	Lower	Upper
76	100		
44	58.1	15.1	22.7#
78	8.7	7.2	10.8

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#29

Chloroform

Concen: 1.37 ppbv m

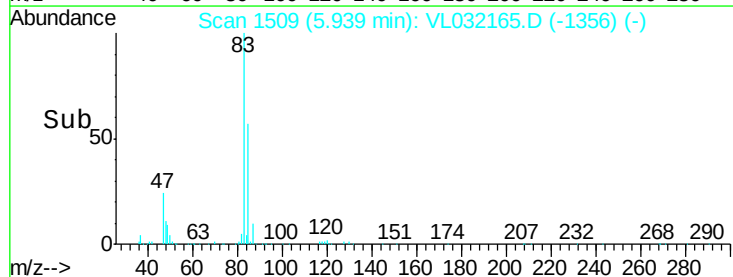
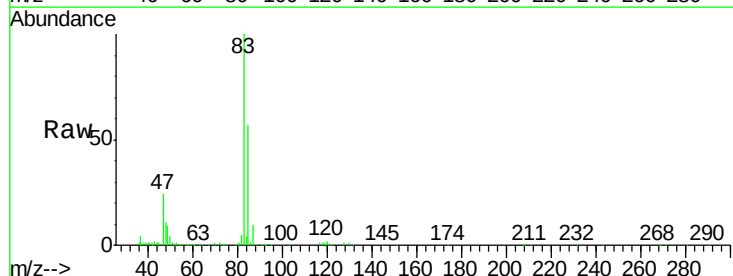
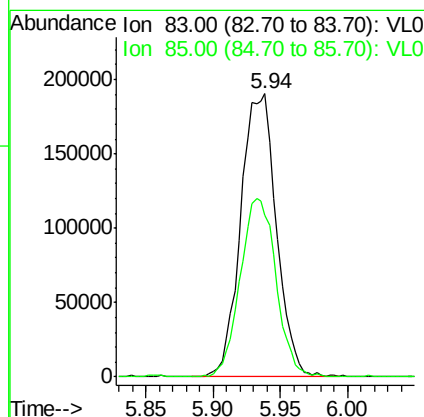
RT: 5.94 min Scan# 1509

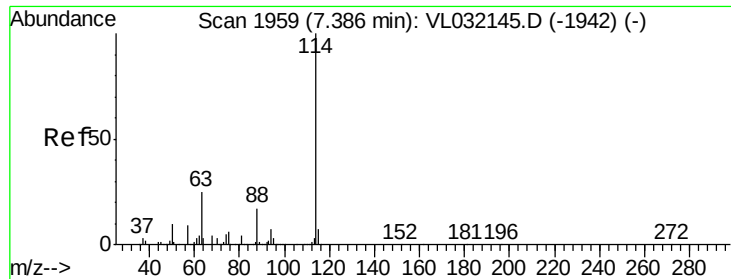
Delta R.T. -0.01 min

Lab File: VL032165.D

Acq: 30 Jun 2018 11:13

Tgt Ion	Ratio	Lower	Upper
83	100		
85	57.3	51.6	77.4





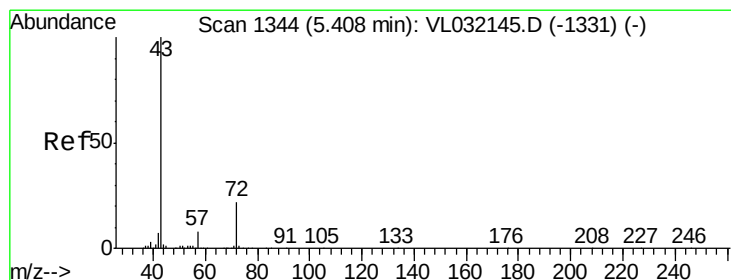
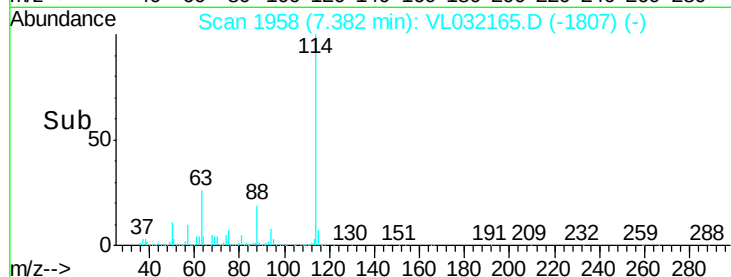
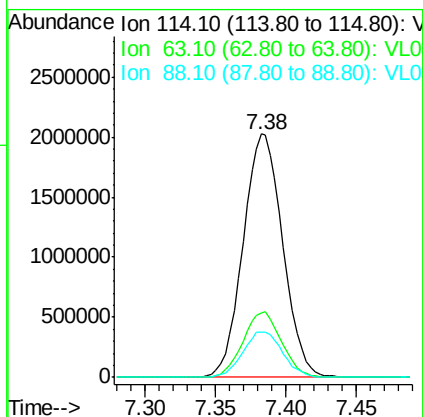
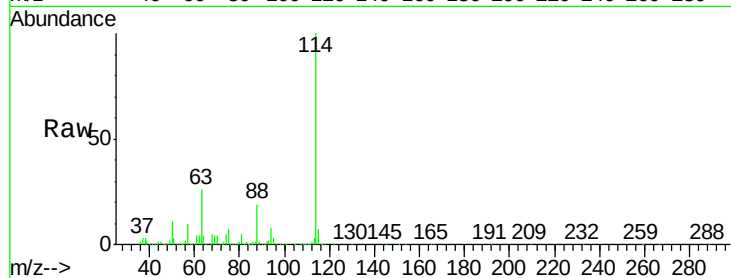
#33
 1,4-Difluorobenzene
 Concen: 10.00 ppbv
 RT: 7.38 min Scan# 1958
 Delta R.T. -0.02 min
 Lab File: VL032165.D
 Acq: 30 Jun 2018 11:13

Instrument :
 MSVOA_L
 ClientSampleId :
 RESIDENT-B-INDOOR

Tot Ion	Ratio	Lower	Upper
114	100		
63	26.5	19.1	28.7
88	18.9	13.9	20.9

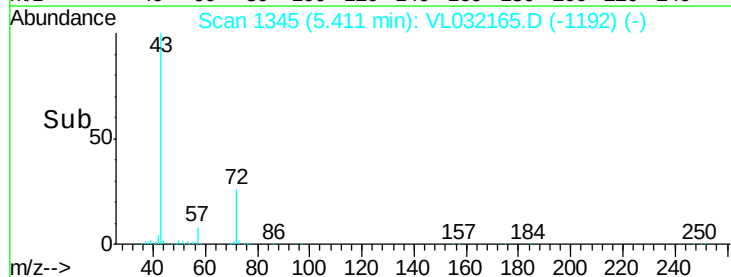
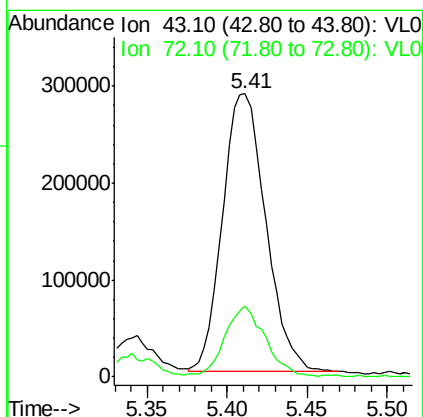
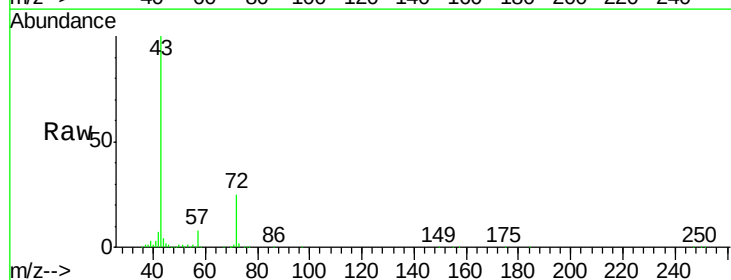
Manual Integrations
 APPROVED

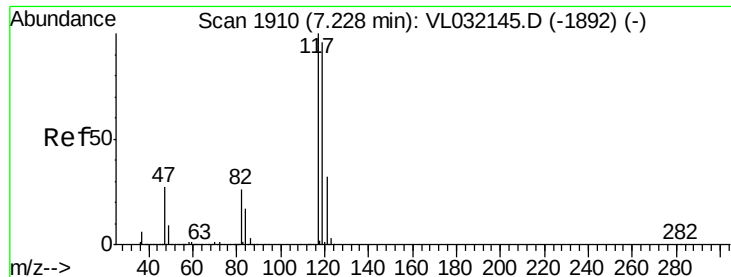
MMDadoda
 7/2/2018 4:26:49 PM



#34
 2-Butanone
 Concen: 2.10 ppbv
 RT: 5.41 min Scan# 1345
 Delta R.T. -0.01 min
 Lab File: VL032165.D
 Acq: 30 Jun 2018 11:13

Tgt Ion	Ratio	Lower	Upper
43	100		
72	24.7	18.4	27.6





#35

Carbon Tetrachloride

Concen: 0.09 ppbv m

RT: 7.22 min Scan# 1908

Delta R.T. -0.02 min

Lab File: VL032165.D

Acq: 30 Jun 2018 11:13

Instrument :

MSVOA_L

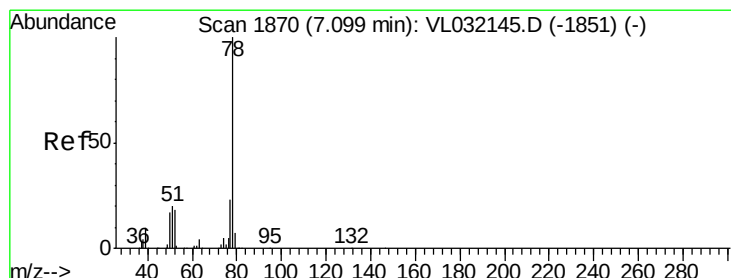
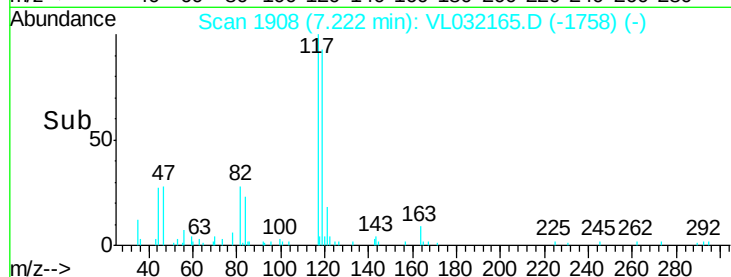
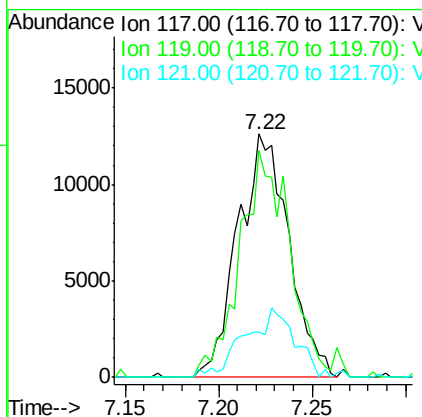
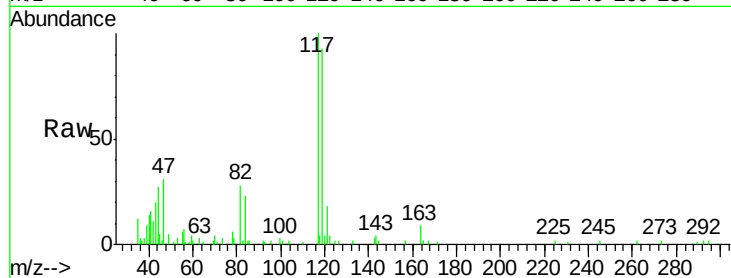
ClientSampleId :

RESIDENT-B-INDOOR

Tot Ion	Ratio	Lower	Upper
117	100		
119	93.1	74.8	112.2
121	18.3	24.0	36.0#

Manual Integrations
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7/2/2018 4:26:49 PM



#36

Benzene

Concen: 0.32 ppbv

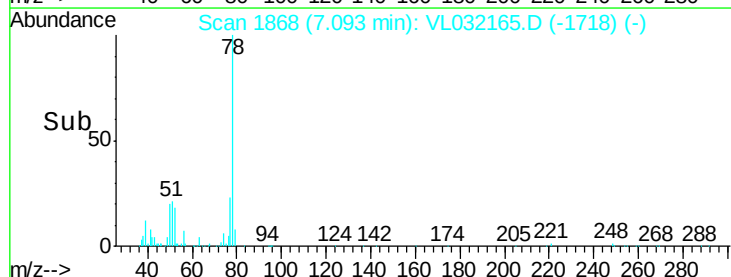
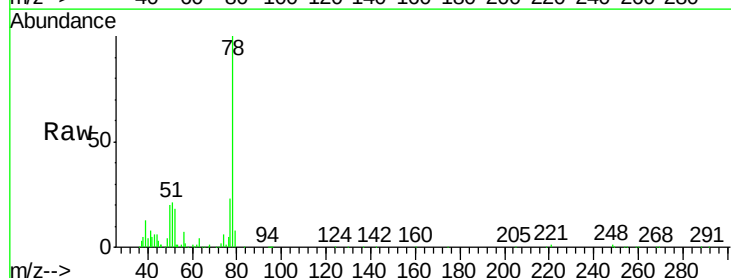
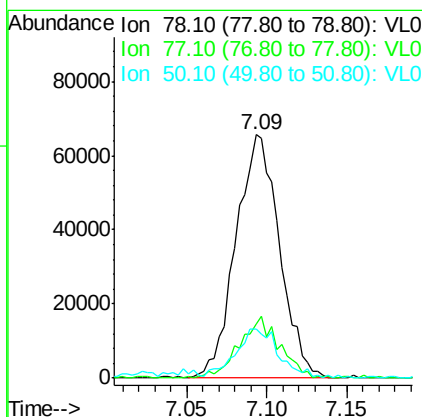
RT: 7.09 min Scan# 1868

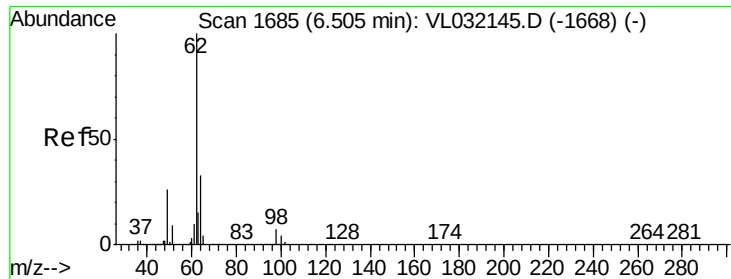
Delta R.T. -0.02 min

Lab File: VL032165.D

Acq: 30 Jun 2018 11:13

Tgt Ion	Ratio	Lower	Upper
78	100		
77	22.2	17.7	26.5
50	18.7	14.0	21.0





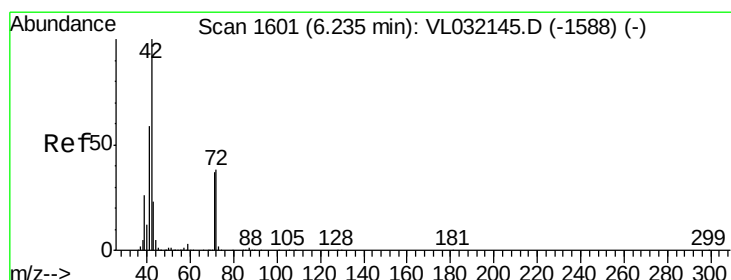
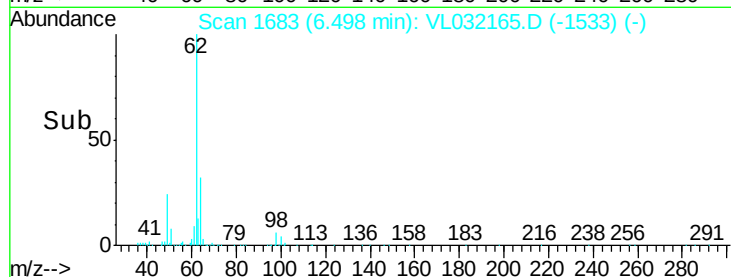
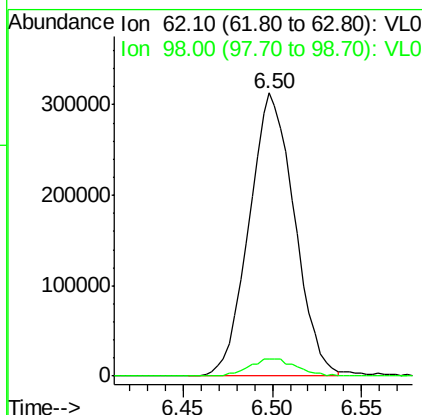
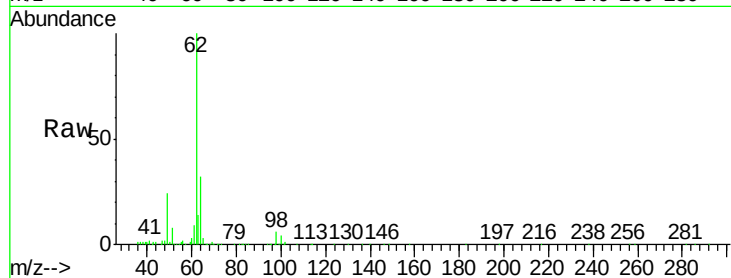
#37
 1,2-Dichloroethane
 Concen: 2.90 ppbv
 RT: 6.50 min Scan# 1683
 Delta R.T. -0.02 min
 Lab File: VL032165.D
 Acq: 30 Jun 2018 11:13

Instrument :
 MSVOA_L
 ClientSampleId :
 RESIDENT-B-INDOOR

Tot Ion	Ratio	Resp	Lower	Upper
62	100	555629		
98	6.4		5.8	8.6

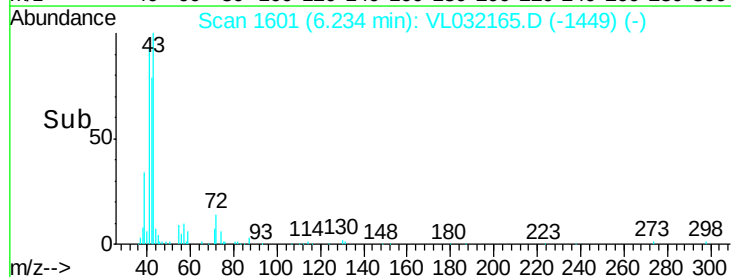
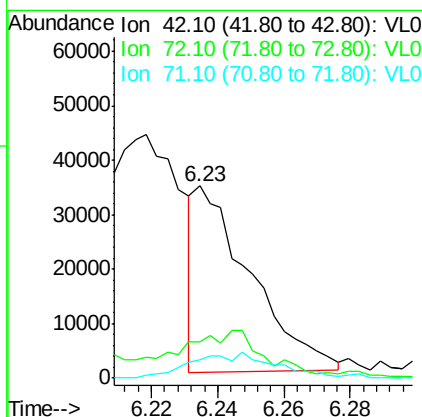
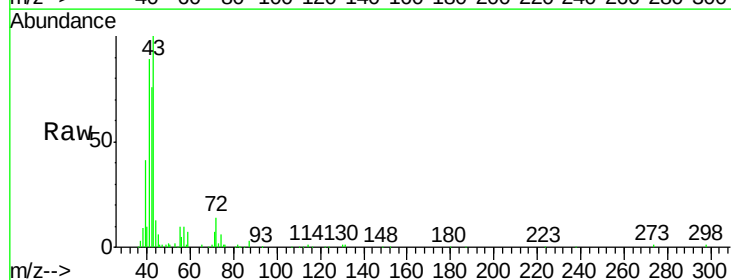
Manual Integrations
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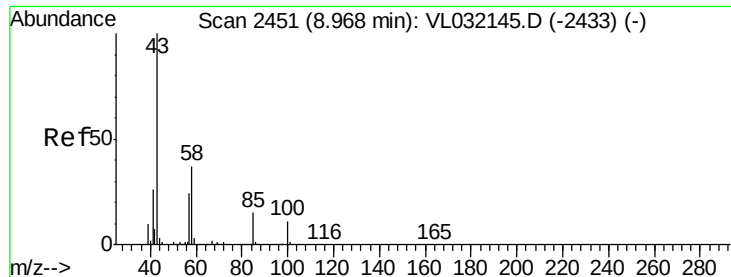
MMDadoda
 7/2/2018 4:26:49 PM



#41
 Tetrahydrofuran
 Concen: 0.26 ppbv
 RT: 6.23 min Scan# 1601
 Delta R.T. -0.01 min
 Lab File: VL032165.D
 Acq: 30 Jun 2018 11:13

Tgt Ion	Ratio	Resp	Lower	Upper
42	100	39580		
72	59.6		31.1	46.7#
71	21.7		29.5	44.3#





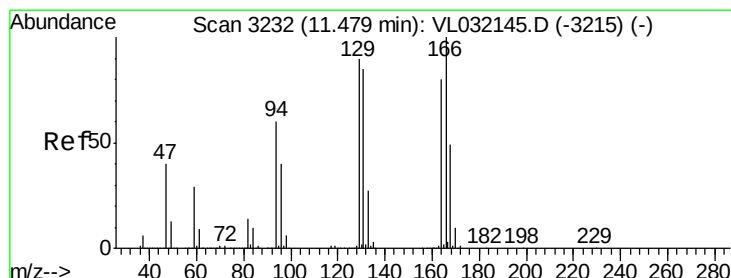
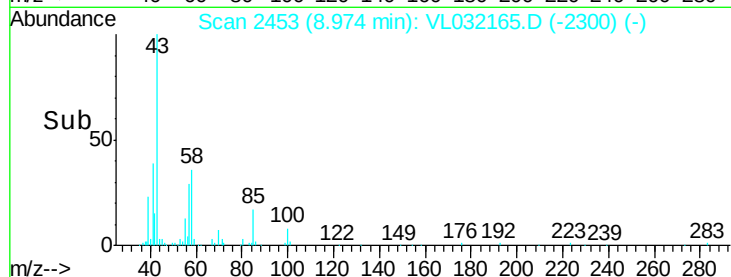
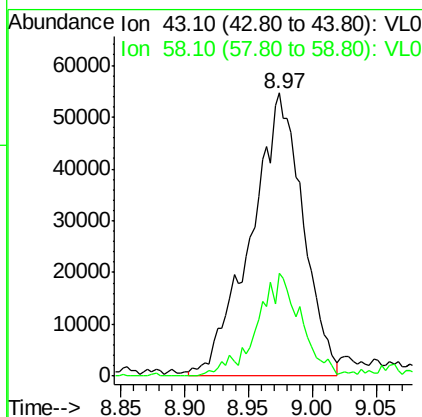
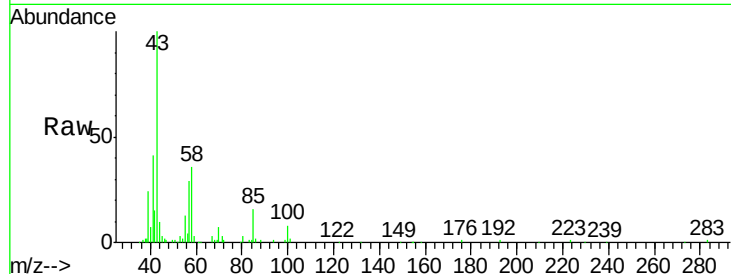
#50
4-Methyl-2-Pentanone
Concen: 0.38 ppbv m
RT: 8.97 min Scan# 2453
Delta R.T. -0.01 min
Lab File: VL032165.D
Acq: 30 Jun 2018 11:13

Instrument :
MSVOA_L
ClientSampleId :
RESIDENT-B-INDOOR

Tot Ion: 43 Resp: 155647
Ion Ratio Lower Upper
43 100
58 0.0 29.8 44.6#

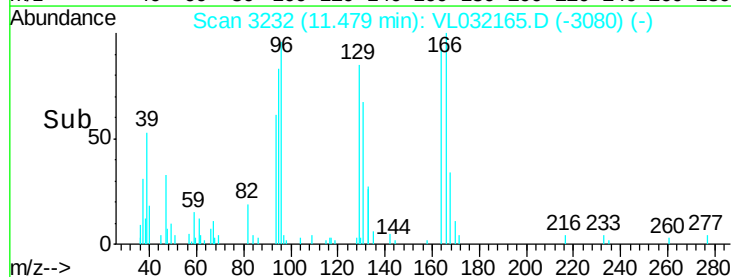
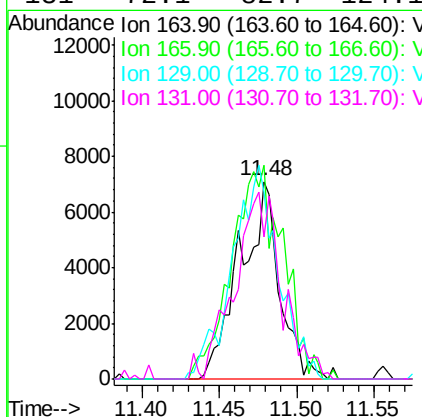
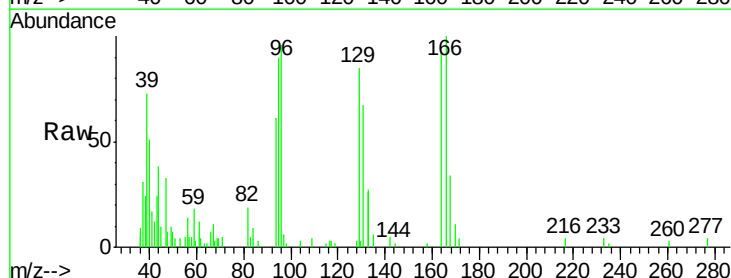
Manual Integrations
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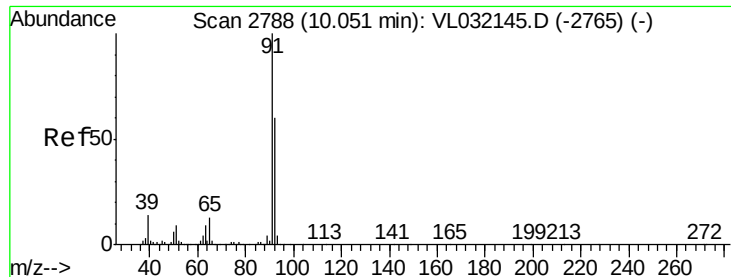
MMDadoda
7/2/2018 4:26:49 PM



#52
Tetrachloroethene
Concen: 0.09 ppbv m
RT: 11.48 min Scan# 3232
Delta R.T. -0.01 min
Lab File: VL032165.D
Acq: 30 Jun 2018 11:13

Tgt Ion: 164 Resp: 12716
Ion Ratio Lower Upper
164 100
166 108.0 100.6 151.0
129 91.8 84.0 126.0
131 72.1 82.7 124.1#





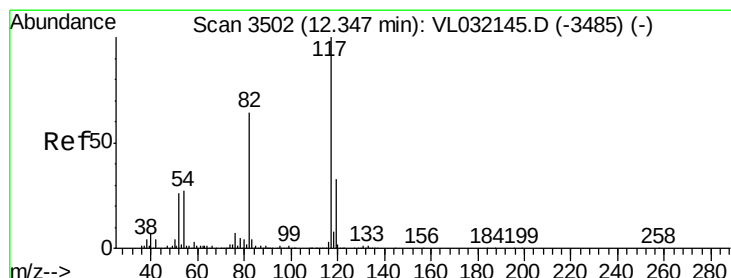
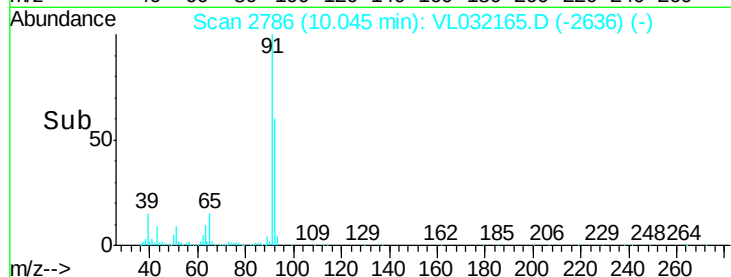
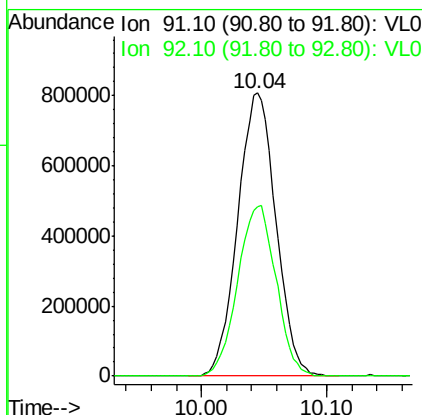
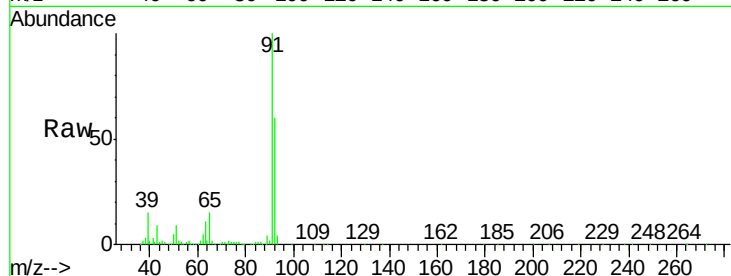
#53
Toluene
Concen: 3.68 ppbv
RT: 10.04 min Scan# 2786
Delta R.T. -0.02 min
Lab File: VL032165.D
Acq: 30 Jun 2018 11:13

Instrument :
MSVOA_L
ClientSampleId :
RESIDENT-B-INDOOR

Tot Ion: 91 Resp: 1709698
Ion Ratio Lower Upper
91 100
92 60.6 49.2 73.8

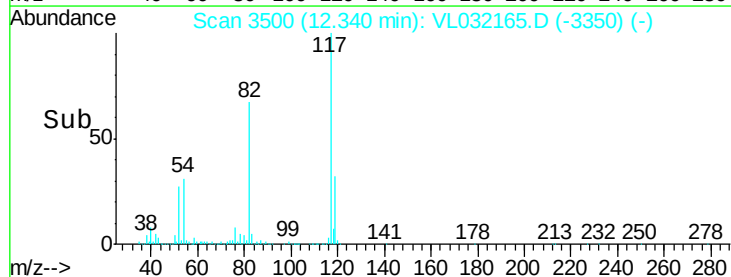
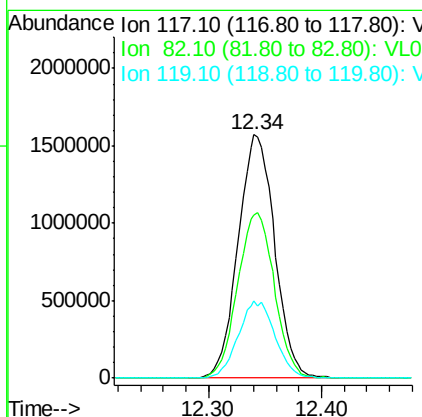
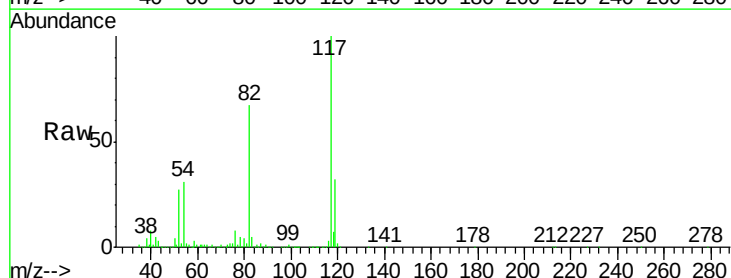
Manual Integrations
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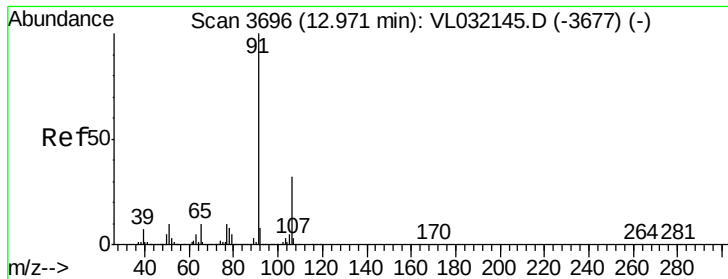
MMDadoda
7/2/2018 4:26:49 PM



#55
Chlorobenzene-d5
Concen: 10.00 ppbv
RT: 12.34 min Scan# 3500
Delta R.T. -0.02 min
Lab File: VL032165.D
Acq: 30 Jun 2018 11:13

Tgt Ion: 117 Resp: 3538086
Ion Ratio Lower Upper
117 100
82 68.8 47.8 71.8
119 31.7 43.3 64.9#





#58

Ethyl Benzene

Concen: 0.68 ppbv

RT: 12.96 min Scan# 3694

Delta R.T. -0.02 min

Lab File: VL032165.D

Acq: 30 Jun 2018 11:13

Instrument :

MSVOA_L

ClientSampleId :

RESIDENT-B-INDOOR

Tot Ion: 91 Resp: 386551

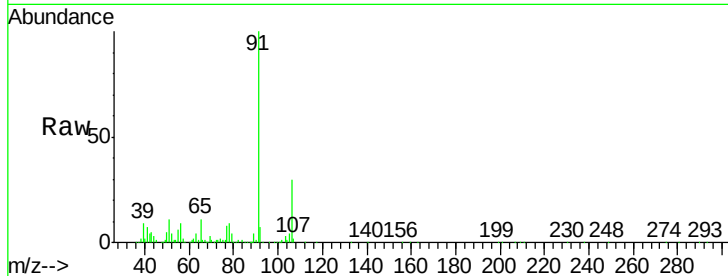
Ion Ratio Lower Upper

91 100

106 30.3 26.5 39.7

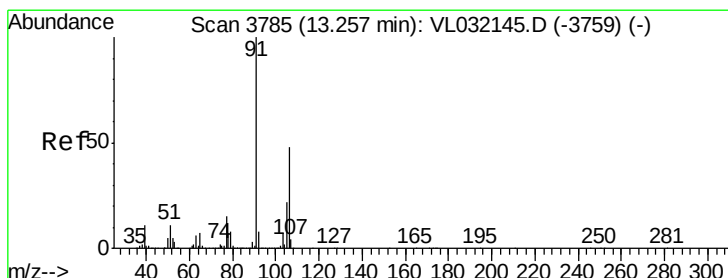
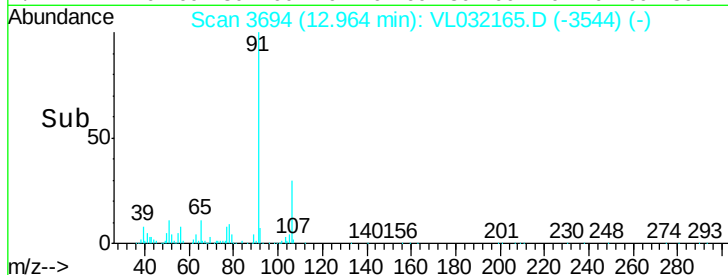
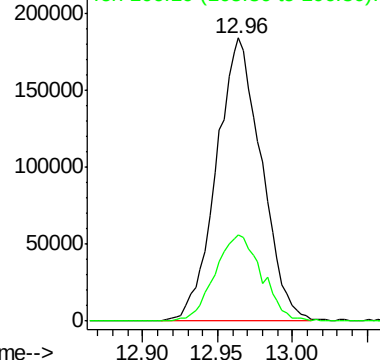
Manual Integrations
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MMDadoda
7/2/2018 4:26:49 PM



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V



#59

m/p-Xylene

Concen: 1.59 ppbv

RT: 13.22 min Scan# 3773

Delta R.T. -0.05 min

Lab File: VL032165.D

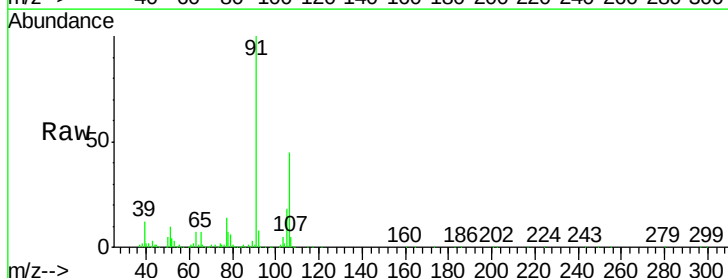
Acq: 30 Jun 2018 11:13

Tgt Ion: 91 Resp: 726885

Ion Ratio Lower Upper

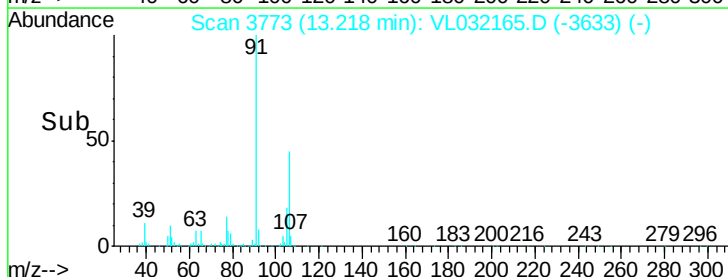
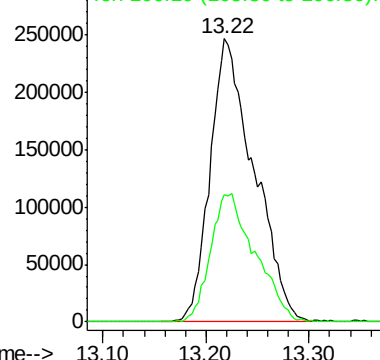
91 100

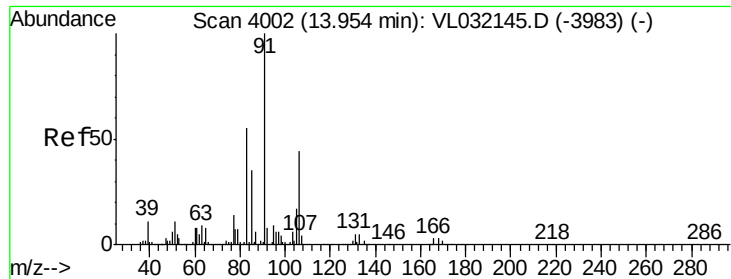
106 46.2 38.6 58.0



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V





#60

o-Xylene

Concen: 0.66 ppbv

RT: 13.95 min Scan# 4000

Delta R.T. -0.02 min

Lab File: VL032165.D

Acq: 30 Jun 2018 11:13

Instrument :

MSVOA_L

ClientSampleId :

RESIDENT-B-INDOOR

Tot Ion: 91 Resp: 301899

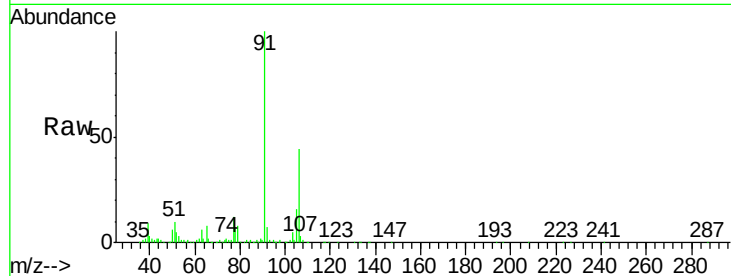
Ion Ratio Lower Upper

91 100

106 44.5 23.3 69.8

Manual Integrations
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7/2/2018 4:26:49 PM



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V

13.95

150000

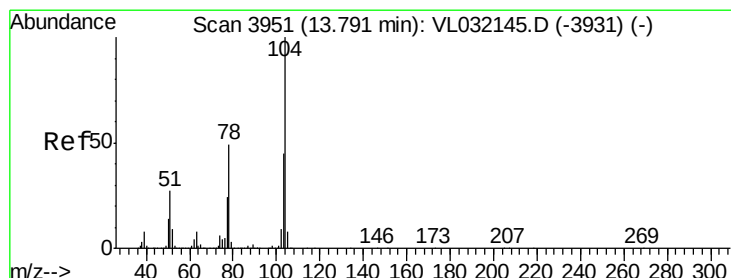
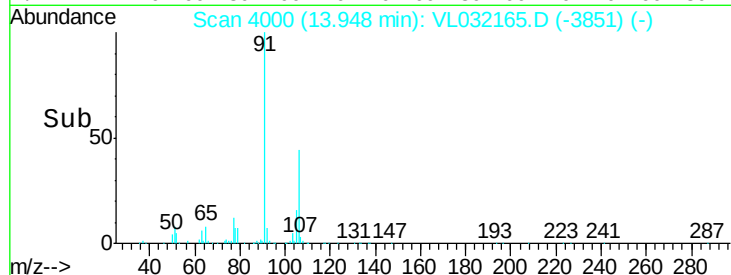
100000

50000

0

13.90 14.00

Time-->



#61

Styrene

Concen: 0.42 ppbv

RT: 13.78 min Scan# 3948

Delta R.T. -0.02 min

Lab File: VL032165.D

Acq: 30 Jun 2018 11:13

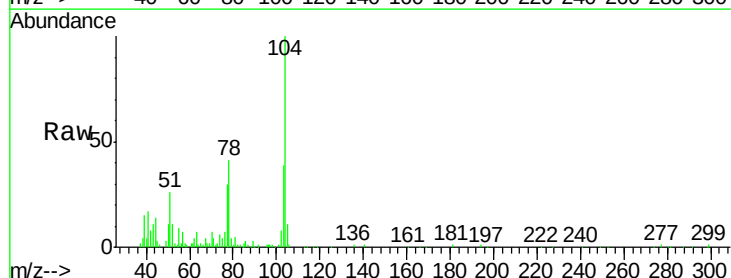
Tgt Ion: 104 Resp: 156191

Ion Ratio Lower Upper

104 100

78 53.7 37.9 56.9

103 47.9 36.6 55.0



Abundance Ion 104.10 (103.80 to 104.80): V

Ion 78.10 (77.80 to 78.80): VL0

Ion 103.10 (102.80 to 103.80): V

13.78

80000

60000

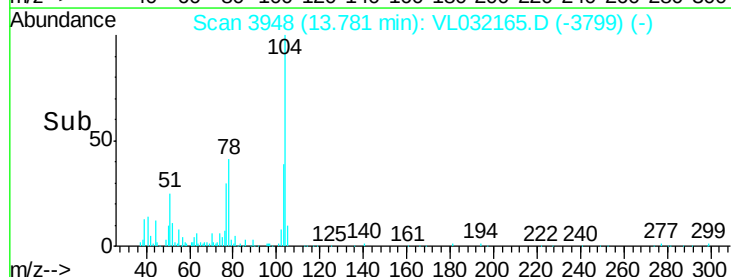
40000

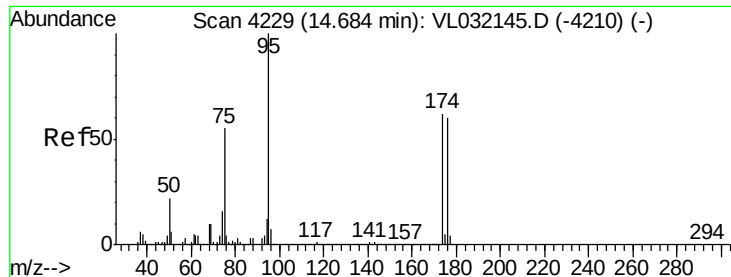
20000

0

13.70 13.75 13.80 13.85

Time-->





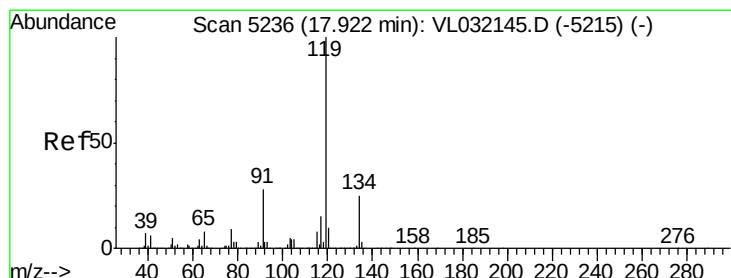
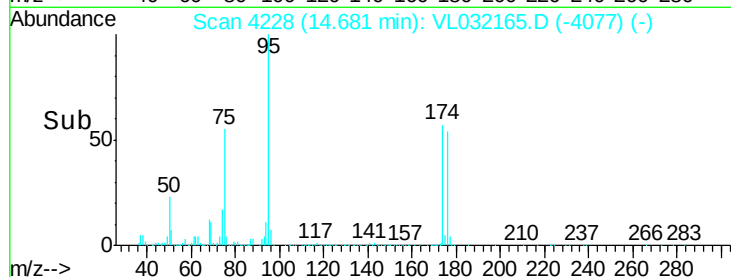
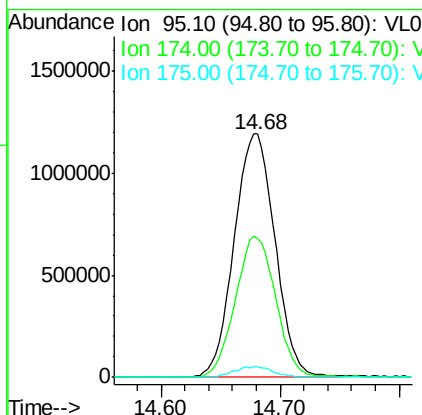
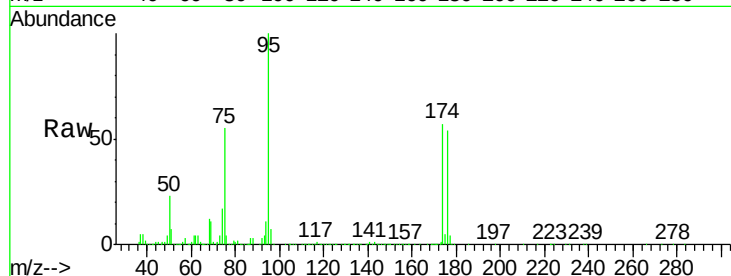
#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.42 ppbv
 RT: 14.68 min Scan# 4228
 Delta R.T. -0.02 min
 Lab File: VL032165.D
 Acq: 30 Jun 2018 11:13

Instrument :
 MSVOA_L
 ClientSampleId :
 RESIDENT-B-INDOOR

Tot Ion: 95 Resp: 2817470
 Ion Ratio Lower Upper
 95 100
 174 58.1 52.1 78.1
 175 4.3 4.0 6.0

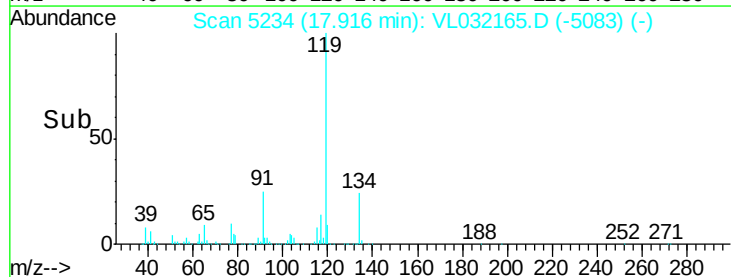
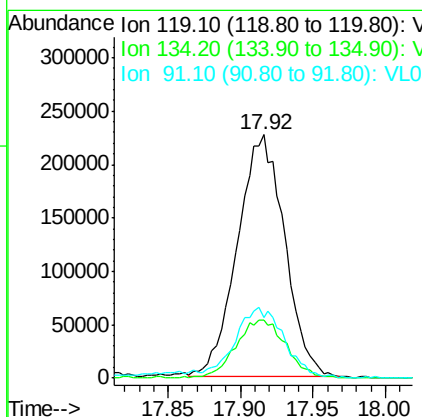
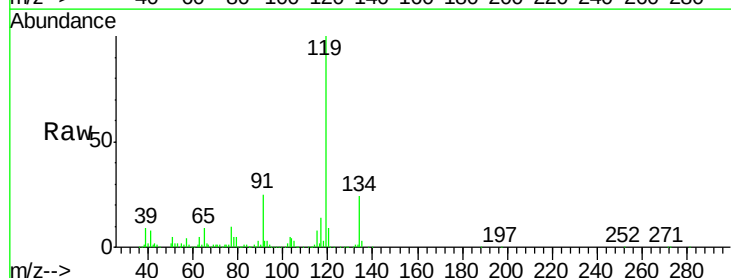
Manual Integrations
 APPROVED

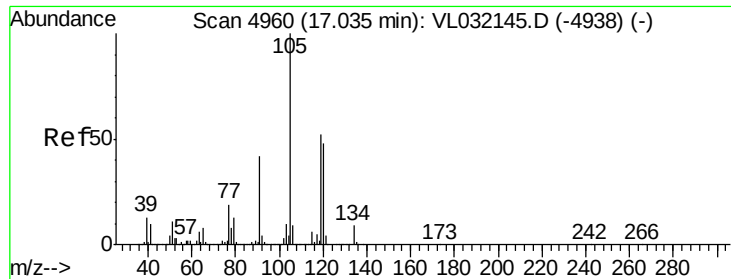
MMDadoda
 7/2/2018 4:26:49 PM



#69
 p-Isopropyltoluene
 Concen: 0.71 ppbv
 RT: 17.92 min Scan# 5234
 Delta R.T. -0.02 min
 Lab File: VL032165.D
 Acq: 30 Jun 2018 11:13

Tgt Ion: 119 Resp: 513621
 Ion Ratio Lower Upper
 119 100
 134 25.4 20.7 31.1
 91 32.0 21.8 32.8





#74

1,2,4-Trimethylbenzene

Concen: 0.28 ppbv

RT: 17.02 min Scan# 4956

Delta R.T. -0.03 min

Lab File: VL032165.D

Acq: 30 Jun 2018 11:13

Instrument :

MSVOA_L

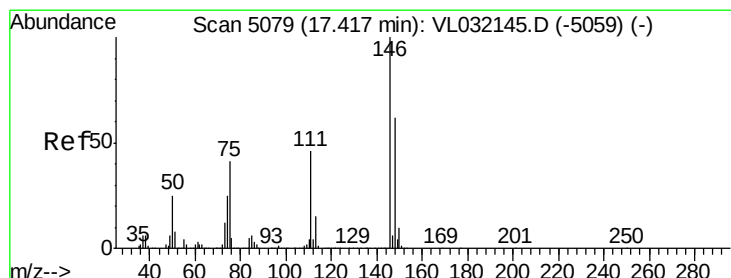
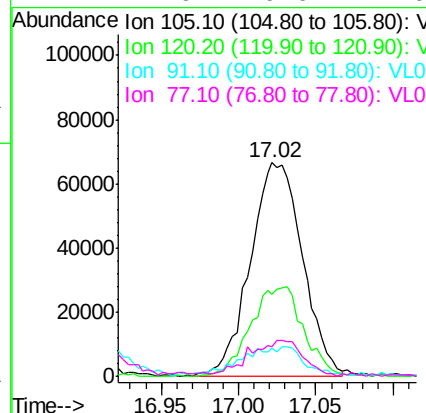
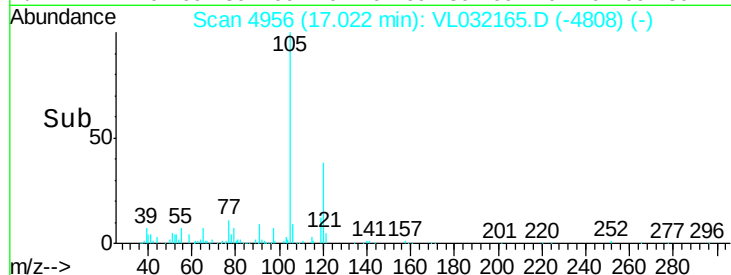
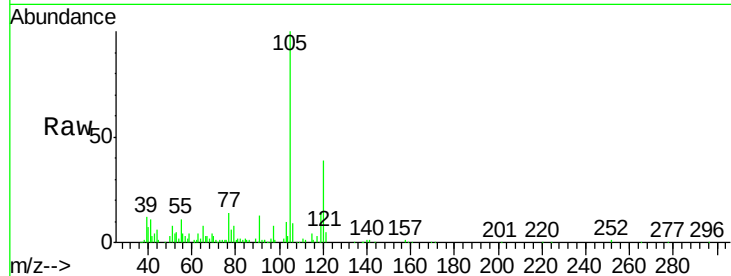
ClientSampleId :

RESIDENT-B-INDOOR

Tot Ion	Ratio	Resp	Lower	Upper
105	100	156365		
120	38.5		38.8	58.2#
91	12.2		33.6	50.4#
77	12.9		16.0	24.0#

Manual Integrations
APPROVED

MMDadoda
7/2/2018 4:26:49 PM



#76

1,4-Dichlorobenzene

Concen: 0.30 ppbv

RT: 17.41 min Scan# 5076

Delta R.T. -0.02 min

Lab File: VL032165.D

Acq: 30 Jun 2018 11:13

Tgt Ion	Ratio	Resp	Lower	Upper
146	100	96199		
111	55.9		21.9	65.8
148	63.0		32.1	96.5

